

Only the very best grades of oils should be used in motor 2, and a simple and positive means of determining the oil level should be provided on every truck. This is especially needed on the Garfield trucks.

A study should be made of the conditions which are responsible for the blowing out of cylinder head gaskets in the motor of the Standard Class B truck, and such changes made as may be necessary to eliminate this trouble.

The mufflers of the D.H.C. and White motors clog up easily, and the construction should be changed.

(a) Ignition and Electrical Systems: The Bosch Magneto used on the Standard Class B truck should be corrected to have a greater air gap between the pencil and the distributor block.

The present acetylene headlights used on all trucks are entirely inadequate, and the carbide generators are unsatisfactory and poorly constructed. It is believed an efficient system of electrical lighting should be adopted for all military trucks. Such a system was developed for the Ordnance Department during the war, by Mr. R. M. Bechtold, thoroughly tested, and pronounced satisfactory.

The use of mechanical or electrical self-starters on military vehicles is undesirable, as they merely add complications to the operation and maintenance of the trucks.

All service cars should be equipped with four electric spot lights for night repair work.

(d) Fuel Systems: Except for a few broken gasoline lines the fuel systems now in use are generally satisfactory, although larger drain cocks in all gasoline tanks would be desirable.

(e) Transmission Systems: A driving worm of 24 pitch instead of 33 1/3 pitch is recommended for all Class B trucks. Of the three Class B tankers, the one with the 33 1/3 pitch worm was the one which was so frequently stalled.

It is recommended that steps be taken to have all future military motorcycles equipped with a complete protective guard around the drive chain system. These steps should also be taken to provide for a unit power plant, eliminating the short drive chain. In future developments steps should be taken to eliminate the chain drive entirely and to substitute shaft drives. There are no insurmountable difficulties to the inclusion of this type of drive in a motorcycle, but it cannot, however, be applied when the "V" type, two cylinder motorcycle motor is used.

Chain driven trucks cannot be operated satisfactorily where soft sandy or muddy roads are encountered. They are essentially good roads trucks.